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USDA United States Department of Agriculture | Natural Resources Conservation Service | Suzanne Reamer
2343 N. U.S. 27 Hwy
St. Johns, MI 48879-9708
517-224-3720 ext 113

SUBJECT: ENG – Walnutdale Farms, Evaluation of Existing Components for Waste Storage Facilities, Allegan County, MI

Date: March 20, 2001

TO: File

File Code: 210-26

Walnutdale Farms is a dairy facility that has seven existing waste storage facilities. An inspection of these storage facilities was conducted on March 17, 2001. John Foldesi, NRCS Civil Engineering Technician, Suzanne Reamer, NRCS Environmental Engineer, and Bill Semeyn, NRCS Resource Conservationist was present. The inspection addressed the suitability of using these existing waste storage facilities as components of the Waste Storage System Plan.

The Waste Management System practice standard (code 312) identifies the conditions under which existing components may be included in a system plan. These conditions are described below.

> Existing components may be included as part of a waste management system plan only if all of the following conditions are met:
>
> 1. The existing component is consistent with the safety requirements of the waste management system.
> 2. An investigation of the existing component indicates it is consistent with sound engineering practice.
> 3. The failure of the existing component will not impair the structural integrity of new components.
> 4. The existing component is in good operating condition.
> 5. The existing component can be managed as part of the planned waste management system.

This letter reports the findings of my inspection in terms of the criteria described above. Refer to the site map for labeling of the existing components.

Manure Storage Structures #1, #2, #3, and #6

These manure storage facilities were constructed in 1998 with NRCS assistance. The manure is scraped from a freestall barn and out to a small push off ramp and into a reinforced concrete storage structure. Michigan Natural Resources Conservation Service standard drawing, SO-E-0090 was used in developing these storage practices. The following measurements were taken:

> Facilities #1 and #2, 55'x 35'x 6' with a 36' long ramp the full width of the facility.
> Facilities #3, 40' x 25' x 6' with a 36' long ramp the full width of facility.
> Facility #6, 42' x 34' x 6' with a 36' long ramp the full width of facility.

Responses to the existing component criteria are as follows:

- Due to the lack of a safety cable on the pushoff ramps the existing component does not appear to be consistent with the safety requirements of the waste management system. Safety cables are missing on components #1, #2 and #3.

- The existing components appear to be consistent with sound engineering practice.
- No new components are being considered near this storage facility, so the failure of the existing component will not impair the structural integrity of new components.
- The existing component appears to be in good operating condition.
- The existing component can be managed as part of the planned waste management system.

In summary, if components #1, #2 and #3 have the following changes made it will meet the Waste Management System practice standard.

- Install a safety cable or bar on the pushoff ramp to prevent equipment from accidentally entering the storage tank.

Manure Storage Structures #4

It is estimated that the Star Company without NRCS assistance constructed manure storage structure #4 in 1974. This manure storage area collects the manure and contaminated rainwater from the barnyard. When this structure was originally constructed it continued under the barn. Recently the portion under the barn has been abandoned. The facility measures approximately 20' x 60' x 8'. The manure is pumped from the structure to the Slurrystore (storage structure #5) or it can be diverted to a liquid spreader. At the time of the inspection this structure is in good condition and is being used as it was intended.

Responses to the existing component criteria are as follows:

- The existing component does appear to be consistent with the safety requirements of the waste management system.
- The existing components appear to be consistent with sound engineering practice.
- No new components are being considered near this storage facility, so the failure of the existing component will not impair the structural integrity of new components.
- The existing component appears to be in good operating condition.
- The existing component can be managed as part of the planned waste management system.

In summary, this component will meet the Waste Management System practice standard.

Manure Storage Structure #5

It is estimated that A.O. Smith Harvestore Products, Inc constructed this structure in 1976. The "Slurrystore" has an 80' diameter and is 25'high; when full this could hold a maximum of 1,333,338 gallons. At the time of this inspection this structure is in good condition and is being used as it was intended.

Responses to the existing component criteria are as follows:

- The existing component does appear to be consistent with the safety requirements of the waste management system.
- The existing components appear to be consistent with sound engineering practice.
- No new components are being considered near this storage facility, so the failure of the existing component will not impair the structural integrity of new components.
- The existing component appears to be in good operating condition.
- The existing component can be managed as part of the planned waste management system.

In summary, this component will meet the Waste Management System practice standard.